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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PEYTON, TAMMARA R	

ART UNIT	PAPER NUMBER
2182	

NOTIFICATION DATE	DELIVERY MODE
05/13/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPDocket@gibbonslaw.com

Office Action Summary	Application No.	Applicant(s)	
	10/665,723	LIAW ET AL.	
	Examiner	Art Unit	
	TAMMARA R. PEYTON	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-47* is/are pending in the application.

4a) Of the above claim(s) *1-36* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :12/4/08,10/24/08,7/11/07,3/22/04.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 37 and 43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 37 and 43 are rejected under 35 U.S.C. 101 (See ***In re Bilski***, 545 F.3d 943, 88 (USPQ2d 1385 (Fed. Cir. 2008) as being directed to nonstatutory subject matter since the claims as a whole appears to result in a mere manipulation and transmission of signal information and therefore would not provide for a practical application, as evidenced by lack of **physical transformation** or a useful, tangible, and concrete result.

For example, claim 37 and 43 recites "transmitting signals…comprising the steps of.. , **receiving** keyboard signals, video signals, mouse signals, and auxiliary peripheral device signals at a transmission node; **forming a data packet**… **encoding** *(note for Applicant: these three signals are but a mere manipulation and not any sort of physical transformation of the video signals)* a vertical synchronization… **encoding** a horizontal synchronization signal onto one of said red component, said blue

component, and said green component of said video signals..**transmitting** said red..blue..green..component in said eight conductor cable" , but from what exactly is receiving and transmitting the signals therein the claim language not specific information. The claim did not specify any particular type or nature of the information; nor did it specify how or from where the signals was obtained or what the information represented or used for. Therefore, claims 37 and 43 as a whole represent mere abstraction; i.e. a disembodied an abstract concept representing nothing more than an "abstract idea" which as a whole do not provide a real world result and therefore there is no a practical application. *(note for Applicant: claims 38 and 44 actually performs a manipulation and physical transformation of the video signals)*

Specifically, claims 37 and 43, a valid process under 35 USC § 101 must either 1) transform underlying subject matter, or 2) be tied to another statutory class, such as a particular apparatus. In order to qualify as a statutory process, the claim should positively recite the other statutory class to which it is tied, for example by identifying the apparatus that accomplishes the method steps. In this case, claim 37 and 43 does not 1) transform underlying subject matter, or 2) does not be tied to another statutory class, such as a particular apparatus. Therefore, claims 37 and 43 are invalid under 35 USC § 101.

Further, a recitation of a computer in the preamble does not appear to be sufficient to tie the process to a particular apparatus. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use

of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone (see In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1.951)).

Claims 37 and 43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In view of Applicant's disclosure, nowhere in the specification is the computer usable medium limited to statutory subject matter, instead it is defied as including both statutory subject matter such as CD-ROM, etc. As such, the claim is not limited to statutory subject matter and is therefore non-statutory. To overcome this type of 35 U.S.C. 101 rejection, preamble of the claim should be amended to include the language of "a computer readable storage medium." In the specification the storage media such as CD-ROM, floppy diskette, hard disk drive needs to be separated into a different category from the transmission media such as signal-bearing media, communication media, .networks, and software.
Claims 38-42 and 44-47, inherit the same deficiency due to the dependency on the claims 37 and 43.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 46 and 47 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, claim 47 includes Only Memory device, a Compact Disc write device, a Compact 2 Disc re-write device, , a Digital VideoDisc Random Access Memory device, a cassette recorder, a headset, a camcorder, **a fingerprint reader, a retina scanner, a biometric authentication device,** and a personal digital assistant, that was not described in the specification. From claim 46, a Centronics device, an Advanced Technology device, **a Super-Video device**, a Digital Video Interface device. Examiner requests that Applicant note the claims above for other claimed subject that was not described in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 37-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admission of Prior Art (AAPA) via Ahern et al. (US 6,388,658) and Thornton et al., (US 6,385,666) and Thornton et al. (US 6,633,934).

The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541,550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

As per claims 37 and 43, AAPA-Thornton'666 and Thornton'934 teaches a method of transmitting signals via a computer management system comprising the steps of:

receiving keyboard signals (AAPA-Thornton'666,18, Fig. 1 and see Specification pgs. 13-15), video signals (AAPA-Thornton'666 R,G,B, Fig. 2) , mouse signals (AAPA-Thornton'666 20, Fig. 1), and audio signals (Thornton'934 teaches audio controller, 64

for speakers 24, Figs. 1 and 2a, col. 5, lines 10-col. 13, lines 1-64) at a transmission node;

forming a data packet (both AAPA-Thornton'666 and Thornton'934 disclose this), comprising said keyboard signals, said mouse signals, and said audio signals (Thornton'934);

encoding (both AAPA-Thornton'666 and Thornton'934 disclose this), a vertical synchronization signal onto one of a red, blue, and green

component of said video signals;

encoding (both AAPA-Thornton'666 and Thornton'934 disclose this), a horizontal synchronization signal onto one of said red component said blue component, and said green component of said video signals;

However, AAPA-Thornton'666 and Thornton'934 do not disclose transmitting said data packet, blue, green, and red over a first, second, third, and fourth pair of wires.

Nonetheless, AAPA-Ahern teaches transmitting said keyboard and mouse signals via a data packet to a receiving node via a first pair of wires in a CAT 5 conductor cable; transmitting said red component of said video signals to said receiving node via a second pair of wires in said a CAT 5 conductor cable; transmitting said blue component of said video signal to said receiving node via a fourth pair of wires in said a CAT 5 conductor cable; and transmitting said green component of said video signal to said receiving node via a third pair of wires in said a CAT 5 conductor cable. Further, it is well known in the art that KVM switching systems utilize eight conductor wires,

preferably in the form of Category 5 ("CAT 5") cabling, to connect the workstations and remote computers to the KVM switch.

AAPA-Thornton'666, Thornton'934, and AAPA-Ahern are analogous art because they are all related to a system having a switch electrically coupled directly to the keyboard, video monitor, and mouse for receiving and transmitting the connected devices signals. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the method of AAPA-Thornton'666 and Thornton'934 that would encodes keyboard, video, mouse and audio signals with the horizontal and vertical synchronization signals into a data packet for transmission over one of the twisted pair in the CAT 5 cable and the remaining three twisted pair in the CAT 5 cable because doing so would have add and expand the flexibility of AAPA-Thornton'666 and Thornton'934 by enabling the signals to be transmitted bi-directionally down a single twisted pair of the CAT5 cable without interfering with the circuitry that is common to all switch modules typically utilized in computer network environments.

As per claims 38 and 44, AAPA-Ahern specifically describes converting said red component of said video signals to a differential signal; converting said green component of said video signals to a differential signal; and converting said blue component of said video signals to a differential signal via the differential input or

output from the CAT5 side are connected to the differential line receiver or differential line driver. (col. 7, lines 1-col. 9, lines 1-63) Further, AAPA-Ahern specifically teaches wherein the external system communication is based on differential signals and that the previously prepared data packages, as prepared by the user or computer interface modules (17, 51) are received by differential line receivers at the CATS cable inputs.

As per claims 39 and 45, AAPA-Thornton'666, Thornton'934, and AAPA-Ahern all teach a form of a data packet however they do not expressly teach wherein said data packet comprises a first section for representing a length of said data packet, a second section for representing said audio signals, and a third section for representing said keyboard signals and said mouse signals. However, this limitation is not structurally involved in the elements of the recited system. Therefore this limitation is deemed to be nonfunctional descriptive material. The elements of the system would be the same regardless of what sections the data packet is utilized and the differences between the content of the Applicant's invention and the prior art are merely subjective. Thus this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401,404 (Fed. Cir. 1983); In re Lowry, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994) also see MPEP 2106. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have a first, second, and third data packet section that carries the length, audio signals (obvious via Thornton'934), and

keyboard/mouse signals (obvious via AAPA-Thornton'666, Thornton'934, and AAPA-Ahern) in more than one section of the header because such information does not structurally relate to the elements of the claimed system and because the subjective interpretation of information does not patentably distinguish the claimed invention.

As per claims 40-42 and 46, 47, Thornton'934 teaches wherein audio device (Fig. 2) is at least one of an audio in port of said computer and an audio out port of said computer, and wherein said audio device is selected from the group consisting of a speaker, an audio headset, a projector, an analog audio recording device, a digital audio recording device, a second computer, a cassette recorder, a Compact Disc writer, a Digital VideoDisc writer, a television, a camera, a telephone, a cellular telephone, and a personal digital assistant. AAPA-Thornton'666, Thornton'934, and AAPA-Ahern teach wherein said auxiliary peripheral device is selected from the group consisting of a serial port device, a Universal Serial Bus device, a Recommended Standard 232 device, a PS/19 device, a parallel device, a firewire device, a Registered Jack 28 device, a Registered Jack 21 device, a Registered Jack 45 device, a Registered Jack 48 device, a British Naval Connector device, a Centronics device, an Advanced Technology device, a Super-Video device, a Digital Video Interface device, an Integrated Development Environment device, a Fiber Distributed Data Interface device, a switch closure device, or a Small Computer System Interface device.

Conclusion

The examiner requests, in response to this office action, support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line number(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application. When responding to this office action, applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R.l .lll(c).

In amending in reply to a rejection of claims in an application or patent under reexamination, the applicant or patent owner must clearly point out the patentable novelty which he or she thinks the claims present in view the state of the art disclosed by the references cited or the objections made. The applicant or patent owner must also show how the amendments avoid such references or objections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammara Peyton whose telephone number is (571) 272-4157. The examiner can normally be reached between 6:30 - 4:00 from Monday to Thursday, (I am off every first Friday), and 6:30-3:00 every second Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272- 6729. The fax phone number for the organization where this application or proceeding is assigned is (571) 273- 8300. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272- 2100.

/Tammara R Peyton/
Primary Examiner, Art Unit 2182
May 8, 2009